APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
CHUONG, TRUC T

ART UNIT	PAPER NUMBER
2179	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/617,669	TRAUT ET AL.
	Examiner	Art Unit	
	TRUC T. CHUONG	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 March 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-16 and 18-34</u> is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-16, and 18-34</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
           application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail. Date _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

This communication is responsive to the RCE, filed 02/01/08.

In this communication, claims 1-16, and 18-34 are pending; 1, 8, 11-12, 21, 23, 30, and

33 are independent claims, and claims 1, 8, 11, 12, 21, 23, 30, and 33 are amended. This action is

made non-final.

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission (RCE) filed on 02/01/08, and Preliminary Amendment

(APE) filed on 03/26/08 have been entered.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

3.   Claims 1-10 are rejected under 35 U.S.C. 101 because claims lack the necessary physical

articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101.

They are clearly not a series of steps or acts to be a process nor are they a combination of

chemical compounds to be a composition of matter. As such, they fail to fall within a statutory

category. They are software, or they are, at best, functional descriptive material *per se*.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.   Claims 1-6, 8-16, and 18-34 are rejected under 35 U.S.C. 102(b) as anticipated by or, in

the alternative, under 35 U.S.C. 103(a) as obvious over Jain et al. (hereinafter, "Jain", U.S.

Patent No. 5,729,471).

        As to claim 1, Jain teaches a computer system for running one or more software

applications, wherein the software applications are suitable for generating a video output, the

computer system comprising:

        a host operating system suitable for displaying a graphical user interface (a system

consists of a UNIX workstation using X-window and Motif on GUI, e.g., col. 20 lines 38-60, and

figs. 15, 18-19A-D);

multiple guest operating systems running <u>on the single computer system</u> (a central

graphical workstation was used to control four video processing workstations, figs. 15 and 18,

col. 30 lines 33-55) in virtual machines emulated by one or more emulator programs running on

the host operating system {Jain inherently teaches this feature because the UNIX workstation

system must have a register table or designated memory (virtual working space, memory, or

machine) for storing information, process IDs, addresses of the slave workstations including their

cameras in order to communicate/control the slave workstations, e.g., col. 30 line 33-col. 31 line

25, and figs. 15, 18-19A-D, and the UNIX workstation constantly displays for viewing or editing

a live video/images broadcasting/feeding from the slave workstations; therefore, Jain inherently

teaches the UNIX workstation system contains virtual machines emulated by one or more

emulator programs running on the UNIX workstation. However, if Jain does not teach this

feature, it would have been obvious to a person of ordinary skill in the art at the time of the

invention to provide a capability of having virtual machines running in the UNIX workstation

system of Jain to allow the user and the system flexibility to select/switch different formats or

environments during viewing or editing processes}; and

wherein the host operating system is able to display a reduced-size <u>continually</u> updated

representation of the video output of at least one operating system from the multiple <u>guest</u>

operating systems that are being operated in a background mode (e.g., col. 30 line 33-col. 31 line

25, and figs. 15, 18-19A-D).

As to claim 2, Jain teaches the computer system of claim 1, further comprising one or

more virtual video memory components suitable for storing the video output of the operating

systems (figs. 15, 18-19A-D).

As to claim 3, Jain teaches the computer system of claim 2, wherein the one or more of

the video memory components are VRAM memory (e.g., col. 33 line 29-col. 4 line 39, and figs.

17-21).

As to claim 4, Jain teaches the computer system of claim 2,

wherein the operating systems operating in a background mode are active (e.g., col. 30

line 33-col. 31 line 25, and figs. 15, 18-19A-D, and the UNIX workstation constantly displays

for viewing or editing a live video/images broadcasting/feeding from the slave workstations);

and

wherein one or more thumbnail images for the operating systems are generated from the

video information stored on the video memory components at predetermined intervals while the

software applications are active (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D, and

the UNIX workstation constantly displays for viewing or editing a live video/images

broadcasting/feeding from the slave workstations).

As to claim 5, Jain teaches the computer system of claim 4, wherein the predetermined

intervals are such that the thumbnail images are real-time representations of the video output

from the active software applications (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-

D, and the UNIX workstation constantly displays for viewing or editing a live video/images

broadcasting/feeding from the slave workstations).

As to claim 6, Jain teaches the computer system of claim 1, wherein the graphical user

interface is a windowing environment suitable for displaying one or more windows (e.g., figs.

15, 18-19A-D); and

wherein the portion of the graphical user interface comprising the reduced-size representation is a window (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claim 8, it can be rejected under a similar rationale as claim 1 above.

As to claim 9, Jain teaches the computer system of claim 8, wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in a background mode (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claim 10, Jain teaches the computer system of claim 8, further comprising a virtual video memory associated with each of the virtual machines (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D); and

wherein the reduced-size representations are generated from the video information stored in the virtual video memory associated with each virtual machine (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claims 11-15, they can be rejected under a similar rationale as claim 1 above.

As to claim 16, it is a method claim of system claim 3. Note the rejection of claim 3 above.

As to claim 18, Jain teaches the method of claim 12 wherein the host operating system is able to display for a user reduced-size representations of the video output of each computer system being operated in a background mode (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claim 19, Jain teaches the method of claim 18 wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in the background mode (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claim 20, Jain teaches the method of claim 19 wherein the computer systems further comprises one or more virtual video memory components suitable for storing the video output of the computer systems (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claims 21 and 23, they are similar in scope to claim 1; therefore, they can be rejected under a similar rationale as claim 1 above.

As to claim 22, Jain teaches the method according to claim 21, wherein the thumbnail images are based on image data from video RAMs of the virtual machines (e.g., col. 33 line 29-col. 4 line 39, and figs. 17-21).

As to claim 24, Jain teaches the method according to claim 23, further comprising concurrently displaying real time thumbnail videos of, respectively, the video outputs of the virtual machines (e.g., col. 33 line 29-col. 4 line 39, and figs. 17-21).

As to claim 25, Jain teaches the method according to claim 23, wherein first thumbnail is derived from video RAM of the first virtual machine, and the second thumbnail is derived from video RAM of the second virtual machine (e.g., col. 33 line 29-col. 4 line 39, and figs. 17-21).

As to claim 26, Jain teaches the method according to claim 23, further comprising allowing a user to interact with the thumbnails to control the virtual machines (e.g., col. 33 line 29-col. 4 line 39, and figs. 17-21).

As to claim 27, Jain teaches the method according to claim 23, wherein displaying of the thumbnails is accomplished by accessing video RAMs of the virtual machines (e.g., col. 33 line 29-col. 4 line 39, and figs. 17-21).

As to claim 28, Jain teaches the method according to claim 23, wherein the thumbnail images comprise reduced versions of images generated for display by the virtual machines (e.g., col. 33 line 29-col. 4 line 39, and figs. 17-21).

As to claim 29, Jain teaches the method according to claim 23, wherein the thumbnails reflect the video outputs of the virtual machines in real time (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D, and the UNIX workstation constantly displays for viewing or editing a live video/images broadcasting/feeding from the slave workstations).

As to claim 30, it is similar in scope to claim 1 above.

As to claim 31, Jain teaches the method according to claim 30, the method further comprising:

determining display modes corresponding to, respectively, the video RAMs of the virtual machines; and generating the thumbnail images in accordance with the display modes (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D).

As to claim 32, Jain teaches the method according to claim 30, wherein the thumbnail images are displayed to reflect the video RAMs in real time (e.g., col. 30 line 33-col. 31 line 25, and figs. 15, 18-19A-D, and the UNIX workstation constantly displays for viewing or editing a live video/images broadcasting/feeding from the slave workstations).

As to claims 33-34, they are similar in scope to claim 1 above.

6.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jain et al. (hereinafter, "Jain", U.S. Patent No. 5,729,471) in view of Brett (hereinafter, "Brett", U.S. Patent No. 5,850,471, cited with office action, mailed 01/03/2003).

As to claim 7, Jain teaches the computer system of claim 1; however Jain does not teach that wherein the reduced-size representation is created using a bilinear sampling technique. Brett clearly describes the bilinear sampling technique in his High-definition Digital Video Processing System (Brett, col. 10 lines 58-74 and col. 11 lines 1-11). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have this data reduction feature of Brett's bilinear sampling technique into the modified system of Jain to improve performance and quality in graphic data loading process (Brett, e.g., col. 11 lines 1-10).

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRUC T. CHUONG whose telephone number is (571)272-4134. The examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Truc T. Chuong

03/30/08

/Weilun Lo/
Supervisory Patent Examiner, Art Unit 2179